

ABSTRACT

A method of induction heat-treating certain surfaces of an article comprising a hub and a plurality of trunnions or shafts extending therefrom, wherein the surfaces to be heat-treated comprise the surfaces of the trunnions. The method employs an induction coil that provides a planar magnetic field that is adapted to the irregular shape of the article, such that the induction coil produces magnetic fields that are adapted to induce currents in, and thereby heat, the trunnion surfaces of the article. The method and induction coil are particularly adapted to provide an induction hardening heat treatment for trunnion surfaces of trunnions used in steel spiders of spider or tripod-type constant velocity joints.